# A REVIEW OF THE DIET AND IMPACT OF FERALCAT ON ISLANDS

MANUEL NOGALES[1], FÉLIX M. MEDINA[2,1], ELSA BONNAUD[3], ERIC VIDAL[3], JOSH DONLAN[4], BRAD KEITT[5], BERNIE TERSHIE[5], ERIKA ZAVALETA[6], MATTHIEU LE CORRE[7]

[1] Island Ecology and Evolution Research Group (IPNA-CSIC), Astrofísico Francisco Sánchez 3, 38206 La Laguna, Tenerife, Canary Islands, Spain
e-mail: mnogales@ipna.csic.es
[2] Unidad de Medio Ambiente, Cabildo Insular de La Palma, Avenida Bajamar 20 2º, 38700 Santa Cruz de La Palma, Canary Islands, Spain
[3] IMEP-CNRS, UMR 6116, Mediterranean Institute for Ecology and Paleoecology, Paul Cézanne University, Bâtiment Villemin, Domaine du Petit Arbois, Avenue Philibert - BP 80, 13545 Aix-en-Provence cedex 04 – France
[4] Department of Ecology and Evolutionary Biology, Cornell University, Ithaca, NY 14853, U.S.A.
[5] Island Conservation and Ecology Group, Long Marine Laboratory, University of California, Santa Cruz, CA 95060, U.S.A.
[6] Department of Integrative Biology, University of California, Berkeley, CA 94720, U.S.A.
[7] Chercheur, Lab ECOMAR, Université de La Réunion, Saint Denis 97715, La Réunion, France

Feral cats predate on distinct type of prey in the different islands depending on their respective prey availability. So, in some of them, and apart of the native and endemic species, are nowadays present invasive non-native species, suitable as prey for cats and which are rather abundant. We review more than 60 feral cat diet studies on islands all over the world in order to analyze the overall biogeographical and ecological patterns in the diversity and type of preys, and subsequently the feeding habits, the success and impact of this introduced predator. Data set were homogenized with meta-analyses procedures and several questions were addressed about trends in feral cat preys, island characteristics, diversity of biogeographic areas with more favorable and abundant resources for feral cat establishment, etc.

On the other hand, no review has been carried out on the impact of feral cats since a species/prey conservation perspective despite of the great biodiversity that harbor the islands. Therefore, this is the main objective of this review which can be useful for scientist and conservation practitioners who work in these particular, fragile and threatened environments. We reviewed more than 150 studies on feral cat impacts on island worldwide with the aim to evaluate the main groups and species deleteriously affected, to know what characteristics make island natives more vulnerable than others, and to prioritize future conservation actions. We compiled data from published and gray literature covering most of the world's insular regions and considering only feral cats and not domestic or stray ones. Due to the high number of prey/species affected by feral cats in the different islands, we only included those species which show a deleteriously conservation status and that has been considered among the five most critical categories of the IUCN Red List of Threatened Species of the World. We consider impact any contrasted evidence that cats have caused a decline in the population abundance or geographical distribution of any native species.